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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,768	06/20/2005	Hee Sook Shin	HI-0185	6478

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EXAMINER
NOORISTANY, SULAIMAN

ART UNIT	PAPER NUMBER
2146	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)	
	10/539,768	SHIN ET AL.	
Office Action Summary	Examiner	Art Unit	
	SULAIMAN NOORISTANY	2146	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-15 and 17</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-15, 17</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
         application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>06/20/2005, 08/01/2005</u>.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

Detailed Action

This Office Action is response to the application (10/539,768) filed on 20, June 2005.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114. including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 7 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/18/08 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 1-15, 17 are rejected under 112, second paragraph as being indefinite for failing to particularly point and distinctly claim the subject matter which applicant regards as the invention

In claim 1, "analyzes *client information*" in line 6 is indefinite and not clear what this is in reference to. However the claim will be given a broad reasonable interpretation for the purposes of examination as best understood.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Huang et**

al. U.S Patent No. **US 7,120,702** in view of **Smith et al.** U.S Patent No. **US 6,970,602**

further in view of **Lue et al.** U.S Patent No. App. **US 2008/0109477.**

Regarding claims 1, 3, Huang teaches wherein a web content converting system for

converting a large display screen web document into a small display screen web

document, the system comprising:

a preprocessor that standardizes a non-standard web document having an

erroneous tag to output a standardized web document in a data format suitable for

analysis **(transcoder transforms the data into a standardized form so that the**

adapter can then modifying the standardized data into a compatible form for

display by the client device -- Abstract, lines 10-13);

a client profile analyzer that extracts and analyzes client information, **(For each**

type of client device, or user preference, a corresponding adapter (acts as an

analyzer) is used to interpret (extract/analyze) the user request (information) and

properly transcode the relevant web content, Col. 3, line-67, Col. 4, lines 1-2);

a structure analyzer that receives the web document standardized in the

preprocessor to sort the web document to a content unit piece **(analyzing the content**

– Col. 5, lines 28-29) according to a document analysis algorithm **(a machine**

component that renders the program code elements in a form that instructs a

digital processing apparatus (that is, a computer) to perform a sequence of

function, Col. 4, lines 24-27); and

a HyperText Markup Language (HTML) generator that generates , rearranges

and reconstructing the content object elements according to a document pattern to

generate small display screen web document **(PatML is a pattern/match replacement**

tool for XML documents, which allows a user to specify how an XML document

can be transformed for browsing on other programs. A PatML rule specifies an

XML pattern to match and how to transform the pattern. Each PatML rule matches

a specific pattern in an HTML page and transforms this pattern into a new XML

fragment (Col. 5, lines 54-61).

With respect to claims 1 and 3, Huang shows all the features of the instant

claimed invention except for the specific detail of "*an image converter that extracts*

information on an image encoding/decoding procedure and an image size of the web

document in order to display the image;

a component block extractor that groups each of the content unit pieces with

similar groups of content unit pieces within a range not exceeding a maximal width by

using an attribution value of the respective content unit piece and the client performance

information, to generate component blocks;

a component block categorizer each of the component blocks generated by the component block extractor as either index or body content portions in accordance with a content characteristic;

an index generator that extracts information on an image or text index from the component blocks categorized as index content portions, and generates a script file and an additional tag collection the extracted information;

an auditory markup generator for converting that converts a text-centered body content block into an auditory markup language to perform an auditory supporting function.

Smith teaches that is well known to have an image converter that extracts information on an image encoding/decoding **(compression)** procedure and an image size of the web document in order to display the image **(There are many ways in which a transcoder can adapt content to the client device, such as by data compression, summarization and media conversion (Col. 2, lines 5-7)**;

a component block extractor that groups the set content unit piece with similar groups **(Fig. 8, -- separate out different items in a Web document such as text bodies, Java applets, images, animations and embedded video. After multimedia object separation, the individual multimedia objects can be analyzed and transcoded independently, can be analyzed and grouped for transcoding, or can be further broken down into individual modalities -- Col. 5, lines 9-15)** within a range not exceeding a maximal width **(images using the measure of the mean saturation per pixel --   Col. 8, lines 49-50; Fig. 9)** by using an attribution value of the

content unit piece **(The system can also extracts a number of image attributes,**
such as image width -- Col. 11, lines 28-29), and the client performance information
to generate component blocks **(Fig. 9; Table 6 – summary of client device in order to**
display the content);

an auditory markup generator for converting that converts a text-centered body
content block into an auditory markup language to perform an auditory supporting
function **(converting text to speech; converting audio to text through speech**
recognition; converting text from one language to another; summarizing text
passages; and so forth -- Co. 4, lines 42-45). Smith further teaches wherein
"document analysis algorithm" – **Abstract.**

However, Smith is silent in terms of *a component block categorizer each of the*
component blocks generated by the component block extractor into index and body
content portions in accordance with a content characteristic;

an index generator that extracts information on an image or text index from the
component block categorized into the index portion, and generates a script file and an
additional tag collection to express the extracted information.

__Lue__ teaches that is well known to have a component block categorizer each of
the component blocks generated by the component block extractor into index and body
content portions in accordance with a content characteristic **(Fig. 12 - 24)**;

an index generator that extracts information on an image or text index from the
component block categorized into the index portion **(Fig. 12-24)**, and generates a script
file and an additional tag collection to express the extracted information **(Fig. 12-24)**;

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Huang's invention by transcoding the web content to small display, where Smith provides the advantage of coupling content analysis with transcoding the content could be better adapted to constraints in delivery, display, processing and storage (col. 2, lines 45-47). Further, transcoding can be found in many areas of content adaptation however it is commonly used in the area of mobile phones content adaptation. In the world of mobile content, transcoding is a must due to the diversity of mobile devices. This diversity requires an intermediate state of content adaptation in order to make sure that the source content will adequately present on the target device it is sent to. Transcoding can also refer to the encoding of files to a lower bit-rate without changing video formats, a process that is also known as translating. when using a camera phone to take a digital picture you are actually creating a high resolution JPEG image, usually at least 640x480 with 24 bits of color. However when sending the image to another phone this high resolution image might be transcoded to a lower resolution image with less amount of color in order to better fit the target device's screen size and color limitation. This size and color reduction not only improves the user experience on the target device but is sometimes the only way for content to be sent between different devices, as taught by Smith.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Huang's invention by transcoding images based on target device display size constraint, each sub document tree is scaled individually by adjusting height and width attributes through the scalar. Source image references are

modified, if needed, to assure server side image transcoding capabilities, including, for

example, image format change, color depth adjustment, and width/height scaling, are

leveraged. Scaling process is applied to each partitioned document as well as the

updated original one to change tag attributes and perform tree optimization at the same

time. Scaling factor is calculated according to estimated document node layout sizing

information and the target client display width available, as taught by <u>Lue</u>.

Regarding claim 2, Huang together with Smith and Lue taught the method according to

claim 1 as described above. Smith further teaches wherein the web

content converting system is installed at any one of three layers of a web server, a client

and a proxy **(The transcoding mechanism can be deployed in a number of ways in

a networked system, including deployment at a server or at the client.

Alternatively, the transcoding system can be deployed at a proxy, which retrieves

the content from the content server (Col. 1, lines 50-54).**

Regarding claim 4, Huang together with Smith and Lue taught the method according to

claim 3 as described above. Lue further teaches wherein in the standardizing step, a tag

such as <TABLE>, <TR>, <TD>, <IMG>, etc. is mainly analyzed **(Fig. 12)**; and a

specific <TD> tag is defined as a component to be used as a minimal unit for the

Content unit analysis. **(Fig. 12).**

Regarding claim 5, Huang together with Smith and Lue taught the method according to

claim 3 as described above. Smith further teaches wherein in the step, a component

tree is in to check initial width information for all component nodes, and the comprises

checking whether or not a sibling node of a current component node exists **(Fig. 8, tree**

decision, The separation process may involve analysis of the multimedia material

to determine file formats, MIME types, and other information that influences the

separation. This processing can separate out different items in a Web document

such as text bodies, Java applets, images, animations and embedded video --

Col. 5, lines 6-11), and if a sibling node of a current component node exists, sibling

nodes are bundled and grouped within range not exceeding the maximal width

(MAX_WIDTH) **(Table 6 -- summary of client device capabilities)**.

        Lue further teaches **(screen/display width – [0016], [0022], [0024])**

Regarding claim 6, Huang together with Smith and Lue taught the method according to

claim 3 as described above. Smith further teaches wherein the categorizing step

comprises the receiving a component block tree for each of the component blocks

comprising a content pattern of the component block **(separation process may**

involve analysis of the multimedia material to determine file formats, MIME types,

and other information that influences the separation -- Col. 5, lines 6-10);

        determining an index type if a resultant value of the pattern comparison exceeds

a certain critical value; setting a type of the index-determined block to each of an image

index (INDEX_I) or a text index (INDEX_T) depending on whether a data type of the

content is an image or a text **(In the analysis process, the document can be**

separated into objects such as photos, graphics and text. Each of the objects can

be analyzed separately as illustrated in FIG. 2-3); and

categorizing a block not being an index the portion as a body portions, and

categorizing an auditory, body (BODY_V) performing to perform the converting into the

auditory, document and general body (BODY_G) processed as other general content

blocks **(converting text to speech; converting audio to text through speech**

recognition; converting text from one language to another; summarizing text

passages; and so forth -- Co. 4, lines 42-45).

<u>Lue</u> further teaches in **(Fig. 12-24).**

Regarding claims 7 & 8, Huang together with Smith and Lue taught the method

according to claim 1 as described above. Smith further teaches wherein converting a

text- centered body content block into an auditory markup language to perform an

auditory supporting function comprises converting a text-centered body content block

into a voice markup language to perform a voice supporting function **(converting text**

to speech; converting audio to text through speech recognition; converting text

from one language to another; summarizing text passages; and so forth -- Co. 4,

lines 42-45).

Claims 9 & 10 have the similar limitation as those claims 1-8; therefore, it's rejected

under the same rationale as in claim 1-8.

Claim 11 has the similar limitation as those claims 1 & 3; therefore, it's rejected under

the same rationale as in claim 1 & 3.

Claim 12 has the similar limitation as those claims 1 & 3; therefore, it's rejected under

the same rationale as in claim 1 & 3.

Claim 13 has the similar limitation as those claims 1- 6; therefore, it's rejected under the

same rationale as in claim 1- 6.

Claim 14 has the similar limitation as those claims 1- 6; therefore, it's rejected under the

same rationale as in claim 1- 6.

Regarding claim 15, Huang together with Smith and Lue taught the method of claim

12, as described above. Smith further teaches wherein the second rearranged web

document is displayed without a scroll bar for a width direction **(Fig. 7)**.

Claim 16 has the similar limitation as those claims 1- 6; therefore, it's rejected under the

same rationale as in claim 1- 6.

Claim 17 has the similar limitation as those claims 1- 6; therefore, it's rejected under the

same rationale as in claim 1- 6.

Response to Amendment

Applicant's arguments with respect to claim(s) 1-15, 17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sulaiman Nooristany whose telephone number is (571) 270-1929. The examiner can normally be reached on M-F from 9 to 5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Pwu, can be reached on (571) 272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sulaiman Nooristany   07/14/2008

/Joseph E. Avellino/

Primary Examiner, Art Unit 2146